

Yellowstone
F
722
.A3
U72
1914

REPORT OF
THE ACTING SUPERINTENDENT OF THE
YELLOWSTONE NATIONAL PARK

TO THE
SECRETARY OF THE INTERIOR

1914





CONTENTS.

	Page.
General statement.....	5
Travel.....	5
Concessioners.....	7
Stream gauging.....	8
Summary of hydrometric work, October 1, 1913, to September 30, 1914.....	8
Roads.....	8
Fish.....	13
Wild animals.....	13
Antelope.....	13
Deer.....	14
Elk.....	14
Moose.....	15
Buffalo.....	15
Wild herd.....	15
Tame herd.....	15
Bears.....	16
Coyotes and wolves.....	16
Mountain lions.....	16
Mountain sheep.....	16
Other animals.....	16
Protection of game.....	17
Birds.....	17
Improvements.....	17
Stage robbery.....	17
Sanitation.....	18
Forest fires.....	19
Natural phenomena.....	20
Concessions.....	20
Recommendations.....	23
Appendix:	
Regulations governing the distribution of animals from the Yellow-	
stone National Park, 1913-14.....	24
Rules and regulations approved May 27, 1911.....	25
Instructions approved April 15, 1914.....	27

ILLUSTRATION.

Map of Yellowstone National Park.....	30
---------------------------------------	----

REPORT OF THE ACTING SUPERINTENDENT OF THE YELLOWSTONE NATIONAL PARK.

DEPARTMENT OF THE INTERIOR,
YELLOWSTONE NATIONAL PARK,
OFFICE OF SUPERINTENDENT,
Yellowstone Park, Wyo., September 30, 1914.

SIR: I have the honor to submit annual report of the condition of affairs in and the management of the Yellowstone National Park from October 15, 1913, to the present date.

GENERAL STATEMENT.

The Yellowstone National Park, set aside by act of March 1, 1872 (secs. 2474 and 2475, R. S., 17 Stat., 32), is located in the States of Wyoming, Montana, and Idaho. It has an area of about 2,142,720 acres and an average altitude of about 8,000 feet.

The military force available for duty in the park consists of a detachment of 200 soldiers of the Cavalry Arm of the service, trained in the different Cavalry regiments and detached therefrom for this special service.

The Second Squadron, First Cavalry, which constituted the military force of the park since September 26, 1910, departed for its new station, the Presidio of Monterey, Cal., on July 3.

The headquarters is located at Fort Yellowstone, but the command also garrisons 15 soldier stations scattered throughout the park, requiring 106 men during the tourist season and 75 during the remainder of the year.

A telephone system connects the soldier stations and the post.

In addition to the military force which is maintained by the War Department, the Interior Department furnishes certain civilian employees, namely, a clerk, scouts, a buffalo keeper, etc.

The detachments of soldiers at the 15 stations performed their duties, with few exceptions, in a very satisfactory manner, and rendered most efficient service in preventing and extinguishing forest fires during the past season, which was the dryest one on record.

TRAVEL.

The opening of the tourist season, June 15, found all the roads in good condition for travel. There were no funds to sprinkle the roads until early in August, and as the season was without rain, except a few local showers, there were many complaints of dust.

The aggregate number of persons making park trips during the season of 1914 was as follows:

Travel during the season of 1914.

Yellowstone Park Transportation Co., entering via northern entrance----	3, 919
Yellowstone-Western Stage Co., entering via western entrance-----	4, 116
Holm Transportation Co., entering via eastern entrance-----	145
Total at hotels-----	8, 180
Wylie Permanent Camping Co.:	
Entering via northern entrance-----	1, 936
Entering via western entrance-----	2, 651
Entering via eastern entrance-----	166
	4, 753
Shaw & Powell Camping Co.:	
Entering via northern entrance-----	1, 728
Entering via western entrance-----	693
	2, 421
With other licensees of personally conducted camping parties-----	586
Making park trips with private transportation as camping parties-----	4, 148
Total making park trips-----	20, 088
Number making short trips with special licensees-----	162
Grand total of travel, season of 1914-----	20, 250

The Yellowstone Park Boat Co. reports that 3,537 passengers took the boat trip across Yellowstone Lake during the season, of which 1,362 were traveling with the Yellowstone Park Transportation Co., 1,101 with the Yellowstone-Western Stage Co., 875 with the Wylie Permanent Camping Co., 190 with the Shaw & Powell Camping Co., and 9 miscellaneous.

Travel by the different entrances.

From the north, via Gardiner, Mont-----	8, 929
From the west, via Yellowstone, Mont-----	9, 875
From the south, via Jackson Hole-----	379
From the east, via Cody, Wyo-----	1, 067
Total-----	20, 250

The travel by way of Tower Falls by regular tourists returning to Mammoth Hot Springs from Grand Canyon is increasing, the Yellowstone-Western Stage Co. alone reporting 1,082 passengers via that route during the season. Many traveling with the other companies also came over this road, which is a very popular one with all who take it, as it affords the finest mountain scenery to be found in the park at a small additional expense for transportation.

The season's travel was light as compared with previous years, the available transportation facilities being greater than required to handle the traffic. The Wylie Permanent Camping Co. had 101 vehicles in use during the season, the Shaw & Powell Camping Co. used 85 wagons in transporting its passengers and hauling supplies to its permanent camps, and, in addition to these, movable camp licenses were issued during the season covering a total of 69 wagons and 225 saddle and pack animals and for 5 special wagons for livery work.

An increase in the number of private camping parties touring the park is notable.

A few private automobiles have passed over the road leading from Bozeman, Mont., to the southern part of Gallatin County, Mont., through the northwest corner of the park. This is the only road in the park on which motor-propelled vehicles are allowed, and it is not a part of the regular tourist route.

The popular sentiment of those touring the park is against the admittance of automobiles.

CONCESSIONERS.

The business of all concessioners in the park has been satisfactorily conducted and but few complaints have been received.

The Yellowstone Park Hotel Co. finished the extensive repairs and enlargements of hotels at Mammoth and Upper Geyser Basin, and there has been ample room for all guests during the season, and also an excess of rooms with extra accommodations, baths, etc., for those who desired to pay the extra charges for them.

The Yellowstone-Western Stage Co. took over the business of the Monida & Yellowstone Stage Co., whose contract was canceled September 20, 1913, for violation of its provisions, under a contract for one year, and has given satisfactory service.

The one-year contract with the Holm Transportation Co., which expired March 31, 1914, was extended for a period of three years on January 23, 1914.

The Shaw & Powell Camping Co. completed a log bungalow for use as a dining room and lobby at the Willow Park camp, where the sleeping tents were also rebuilt and many new ones of an approved new pattern furnished; constructed a new log kitchen 24 by 24 feet and installed a new water system at the camp on Nez Perce Creek; nearly completed a bungalow of logs for dining room and lobby at Old Faithful camp and piped fine mountain water about 900 feet into that camp; and at Thumb camp have completed a log kitchen 24 by 24 feet. This company has also begun the work of constructing a log bungalow for dining room and lobby at the camp at Grand Canyon.

Mr. George Whittaker made a substantial enlargement to his post-office store at Mammoth Hot Springs, putting in a plate-glass front and adding generally to the attractiveness of his place of business, installing new fixtures, and making a general rearrangement of the interior.

A ten-year concession was granted to Mr. Henry J. Brothers, of Salt Lake City, Utah, to establish and maintain a natural hot-water plunge and bath houses at Upper Geyser Basin. An open plunge 50 by 100 feet and five private plunges 5 by 10 feet each have been constructed, and he is now at work on his buildings and one-half mile of 6-inch pipe line, preparatory to opening up his business next year.

Mr. Henry E. Klammer, who for many years was connected in a business way with the park, and who for the past six years has held a general store concession at the Upper Basin, died August 12. His service to the park and the public was of great value, as the guiding motive of his every act was the park's best interest.

STREAM GAUGING.

The stream gauges installed last season have been cared for and read and records made under the direction of Mr. G. Clyde Baldwin, district engineer of the water-resources branch of the United States Geological Survey, whose headquarters are at Boise, Idaho. Mr. Baldwin furnishes the following report on this work:

SUMMARY OF HYDROMETRIC WORK, OCTOBER 1, 1913, TO SEPTEMBER 30, 1914.¹

The funds available for expenditure on hydrometric work within the park have not been sufficient to permit undertaking any new work during the past year. For the same reason it has been impossible as yet either to erect measuring cables at the stations on Yellowstone and Snake Rivers or to install the automatic water-stage register at the former.

The four gauging stations established during June, 1913, have been continued on a strictly maintenance basis. During the latter part of February and early in March of 1914 one of the survey hydrographers visited each of these stations and secured actual current meter measurements at what was very nearly the minimum stage of flow for the winter. Another visit to each was made during September, 1914, at which time the staff gauges were checked with a level and minor repairs made to put them in shape for the coming winter.

As a result of this work it is now possible to make complete discharge computations for the following stations from the date of their establishment until September 30, 1914:

Madison River near Yellowstone, Mont. (Records good.)

Gibbon River at Wylie Lunch Station near Yellowstone, Mont. (Some uncertainty due to a shift in the gauge, but records good with this exception.)

South Fork Snake River at south boundary, Yellowstone National Park. (Not well rated, but records believed to be good where discharges are less than 1,300 second-feet.)

The station on Yellowstone River above Upper Falls can not be well rated until a cable from which current meter measurements can be secured is installed. Approximate data for low stages of flow can now be obtained, however, based upon one wading measurement and on three measurements secured from the Fishing Bridge at the outlet of Yellowstone Lake. Difficulty has been experienced at this station in securing winter gauge readings because of ice formation near the banks of the stream. On this account no readings were obtained during the greater portion of the past winter.

Gauge height and discharge data for these stations, together with descriptions and summaries of the current meter measurements, will be published in the annual Water-Supply Papers of the United States Geological Survey, Parts VI and XII, respectively, for Missouri River and Snake River drainage areas.

ROADS.

The sundry civil bill, approved August 1, 1914, appropriated for maintenance and repair of improvements \$125,000, including not

¹ By G. Clyde Baldwin.

to exceed \$7,500 for maintenance of the road in the forest reserve leading out of the park from the east boundary, and not to exceed \$2,500 for the maintenance of the road in the forest reserves leading out of the park from the south boundary, to be expended by and under the direction of the Secretary of War.

For widening to not exceeding 18 feet and improving surface of roads and for building bridges and culverts, from the belt-line road to the western border; from the Thumb Station to the southern border; and from the Lake Hotel to the eastern border, all within Yellowstone National Park, to make such roads suitable and safe for animal-drawn and motor-propelled vehicles, \$100,000.

For widening to not exceeding 18 feet and improving the surface of roads and for building bridges and culverts, in the forest reserve leading out of the park from the east boundary, to make such roads suitable and safe for animal-drawn and motor-propelled vehicles, \$30,000.

This work is now in charge of Maj. Amos A. Fries, United States Engineer Corps, who relieved Capt. C. H. Knight, United States Engineer Corps, under paragraph 25 of Special Orders, No. 131, War Department, Washington, D. C., June 5, 1914. Maj. Fries has furnished the following notes on the work in the park under his department:

The following concrete bridges have been erected:

Over the Gibbon River near the junction of the Gibbon and Firehole Rivers.

Over the Firehole River $2\frac{1}{2}$ miles east of the Upper Geyser Basin.

Over the Gibbon River 7 miles south of Norris.

Over the Firehole River near the junction of side road to Lone Star Geyser.

A steel bridge was constructed over the Gibbon River 10 miles south of Norris.

The 465-foot bridge over the Yellowstone River near the lake outlet was redecked.

A number of wooden bridges throughout the park were repaired.

The 200-foot Canyon Arch Bridge being built under contract, dated October 14, 1913, is completed far enough so that traffic can pass over it at the opening of the season of 1915, there remaining to be done only necessary finishing and the erection of the side rails.

On July 2 notification was received that a 15-day extension of last year's appropriation had been made, which would give this office \$8,333.33. The sprinkling system was immediately started in operation, though all sprinklers were not working until after the middle of July, due to difficulty in getting water in certain places, following a very light snowfall during the previous winter. Sprinkling covered a distance of nearly 95 miles, being a slight extension over the mileage sprinkled the previous year. Several good rains occurring in the early part of July, coupled with the sprinkling, kept the roads in excellent shape. Beginning the latter part of July there was practically no rain, and sections of the road across the Continental Divide between the Thumb and the Lake and between Canyon and Norris that were not sprinkled became exceedingly dusty, and during the high winds particularly annoying. In order to increase the number of miles that may be sprinkled hereafter without the purchase of more sprinkler wagons, two gasoline engine pumping sets have been purchased and are being tried out with a view to installing them on all wagons hitherto equipped with hand-pumping

sets. This will increase the distance which these wagons can sprinkle from about 3 or $3\frac{1}{2}$ miles to about 6 or $6\frac{1}{2}$ miles and will enable this office with the present plant, excepting pumping sets, to sprinkle the entire belt line, providing water can be obtained.

With this last object in view wells have been dug in low, swampy places across the hill between Norris and Canyon and water has been found at frequent enough intervals to make the sprinkling of the hill practicable, providing three or four wells about which there is doubt do not give out, once steady sprinkling is begun. The exceedingly dry season following a light snowfall put several sprinkler tanks out of commission, especially along the section now sprinkled between the Thumb and the Lake. In connection with the sprinkling, light split-log drags were furnished a number of sprinkler stations and used to drag the roads during and immediately after showers when too wet for sprinkling. This was a material benefit, but, due to the crown on many of the roads, was not so successful as it is believed it can be made.

The subject of oiling the roads for dust prevention has been under consideration for some time and the preliminary tests were made. Due to the lateness of the appropriation, followed by cold weather and an exceedingly heavy snow and rain storm, beginning September 12, but 2 miles of road were oiled between Gardiner and Mammoth. This oiling was rather unsatisfactory for several reasons. The nights were getting very cold and men competent to run the oiling apparatus could not be found. Moreover, just as the distributor was getting into good running order a careless teamster ran it into a bridge, breaking several parts, and causing a delay of two weeks until new parts could be obtained and the slight amount of oiling done could be completed. Enough work was done to indicate that the cost of oiling roads for dust prevention, unless such roads be good gravel or broken-stone macadam, will prove very expensive, and, indeed, then to be satisfactory may require a lighter oil than has been found best in other localities, due to the cold nights and high rate of evaporation, resulting from the high altitude which makes a very material decrease in the atmospheric pressure as found at sea level.

The concrete oil tank, with a capacity of two large cars of oil, was built at Gardiner. Plans are being made to build this fall or next spring a similar tank at Yellowstone. At this latter place 2 to 4 miles will be graded and surfaced as a gravel and broken-stone macadam, which will be oiled as soon as the weather is hot enough in the season of 1915.

Early in the season plans were made for installing an electric-driven pumping plant for sluicing out the Gardiner slide, which has proven troublesome for a number of years. On September 30 the power line will be practically complete and ready to install the pump as soon as it should arrive, which is expected to be within the first five days of October. It is believed that by this method the Gardiner slide can be taken care of each spring or fall without interruption to traffic and at a very low cost.

Notice of the passage of the regular appropriation for the improvement of roads in the park was not received until August 6, bill having been signed August 1. Prior to this, however, one small party was put to work widening and surfacing the roads in the vicinity of

the 9-mile post from the west boundary, and another party to building retaining and guard walls along the Virginia Cascades on the Norris-Canyon Road. This latter work was completed in very good shape during the last part of August and the crew shifted to other work.

Immediately after the passage of the appropriation bill parties were organized and equipped and put to work as follows: On west road, four, one of these parties grading and finishing a macadam section at the west entrance. In this work the road roller that has not been operated for a number of years has been successfully used both during the tourist season and afterwards. However, during the tourist season the road roller was run at night, light being furnished by an acetylene headlight. At the end of September the rock-crushing plant had been put in operation, and it is expected to continue work with it. Another party continued widening between the 9 and 11 mileposts from the west boundary along the Madison River, while a third party was widening and improving the road in the vicinity of the junction of the Firehole and Gibbon Rivers, and a fourth party began widening in narrow rock cuts along the Firehole about 3 miles from its junction with the Gibbon.

About the middle of August a survey party was sent to carefully resurvey the line which it is proposed to rebuild for about $1\frac{1}{4}$ miles along the Firehole River, observation having indicated that a much better line from the scenic point of view than the one surveyed last year could be built, and at probably about the same cost. At the end of the month a survey had been completed and estimates of costs made while maps of the line were being prepared.

As soon as practicable two parties were organized to build turnouts and construct reinforced concrete culverts to replace a number of wooden bridges. This work was considerably interfered with by the weather, so that on September 30 only one 12-foot bridge had been completed and one 10-foot concrete arch culvert to replace a bridge of nearly 100-foot span. Work was, however, progressing very favorably upon two other bridges, while a large number of turnouts had been completed, so that the moment the season opens in 1915 work can be pushed and bridges completed at an early date. Approaches of three concrete bridges completed late in 1913 or early in 1914 were completed, the old bridges removed, and the new bridges put in operation.

At the south entrance one good-sized working party was organized and sent to work immediately after the passage of the appropriation. This party has done excellent work, and completing about 2 miles of road from the south boundary northward, and though driven out of that locality by heavy snow on the 13th, 14th, and 15th of September, and after putting in eight days of very hard work at fire fighting, the season having been a dry one, and the danger of fires such that orders were issued to all foremen to use their whole crew if necessary to put out any fires in their vicinity. This has been done on three or four other instances, besides the one mentioned above, but for much shorter time, no one working more than one day. At the end of the month this party had moved its camp to the Thumb, and had begun work on the section of the road between the Thumb and Lewis Lake. This work will be pushed as long as the cold and snow will allow.

At the east entrance two parties were put in the field in the forest reserve as soon as practicable, and at the end of June had completed 3 miles of road to a width of 18 feet, and had done considerable work on 2 other miles. It is proposed to have these parties work downstream and continue their work as long as the season is open enough. On the east road inside of the park one party was organized immediately after the appropriation passed and began work at the east boundary, and are working their way westward. About $2\frac{1}{2}$ miles of road have been completed, and work done on 2 other miles of this road is in heavy rock cut, and naturally has been slow.

The one party in the forest reserve straightened out the very bad reversed curve at the entrance to the park, and has made what was a very poor entrance an excellent one. Two other parties were later put to work on the east road, one at the summit of Sylvan Pass and working westward, the other in the vicinity of Cub Creek about halfway between the belt line and the east boundary, clearing the way for a new road across Cub Creek, in order to avoid the very heavy side hill cuts and slides that have been a considerable menace to the road in this vicinity for some years. This entire road had been about half cleared when the above-named parties were driven off the east road to the belt line by 3 or 4 feet of snow, which fell on the 13th and 15th of September. The crew working at the summit did most efficient work, and had nearly completed 2 miles of widening, half of it being in heavy rock slides from the summit to the west end of Sylvan Lake. Not much work was undertaken on the belt line other than the construction of culverts and bridges mentioned above, except on the west slope of Mount Washburn and in Dunraven Pass, where two parties began work about the middle of August. One party widened the very narrow road about one-half mile from the junction. This road was very narrow and dangerous, but has been put in good shape, the work being practically completed and the party moved elsewhere at the end of September. The other party has done excellent work in reshaping and to a slight extent resurfacing the road on the west slope of Mount Washburn, and especially in the construction of a number of wooden culverts at intervals of 300 to 400 feet, in order to avoid the severe washing of the road that has occurred in the past, due largely, it is believed, to its lack of culverts.

In the latter part of September a small party began graveling the center of the road on Swan Lake Flat just above Golden Gate, where the light surface had been worn down to the rock base. This work will be continued as long as the weather permits.

The project having been approved for the expenditure of \$4,000 from the funds for maintenance and repairs for the improvement of the road to the northeast boundary leading into Cooke, Mont., a party was organized and sent to that boundary early in August, where it has worked steadily since. At the end of the month about 3 miles of road had been completed and about one dozen large sized culverts, in addition to one 36-foot bridge across Soda Butte Creek. It is expected that this party will work at least until October 31, as the altitude along Soda Butte Creek is comparatively low and the weather milder than at other places in the park.

A joint inspection of every mile of the park roads was made by the acting superintendent and the engineer officer, and most of the roads

several times. The condition of the roads and the progress of the work on them has been under the constant supervision of the engineer officer, and every dollar so far expended has given a commensurate return in work done.

FISH.

The work at the subhatchery on Yellowstone Lake was continued during the season under Mr. W. T. Thompson, superintendent of the United States hatchery at Bozeman, Mont., who furnished trout for planting in park waters, as follows:

Ten thousand young brook trout (*salvelinus fontinalis*) for Glen Creek, and the same number for Blacktail Deer Creek, on June 18, 1914, shipped in from the Bozeman hatchery.

Also 560,000 blackspotted trout fry (*salmo mykiss*) from the subhatchery in the park, planted as follows: Thirty thousand in Sylvan Lake, 25,000 in Tower Creek, 90,000 in Yellowstone River, and the balance in seven of the small streams emptying into Yellowstone Lake. Eleven million four hundred and sixty-three thousand eggs of the blackspotted trout were shipped away. In notes furnished by Mr. Thompson he emphasizes the importance of returning an abundant supply of fish to Yellowstone Lake and tributary waters, so that there may be no diminution in the number that furnish the spawn for years to come, as this source of supply is an important one and is becoming widely known as such, and the demand from United States and State hatcheries, county and angling association hatcheries, etc., is increasing from year to year.

The Bureau of Fisheries made important improvements during the season, as follows: A one and one-half story log building was put up on Columbine Creek for use of employees. A bungalow was erected near the Lake Hotel, and a frame barn large enough to accommodate four horses, with storage for hay and grain, was also provided at the same point. The grounds were much improved by clearing up fallen timber, trimming trees, and improving the lawn.

The main buildings of the subhatchery, located within walking distance from the Lake Hotel, attract the attention of many travelers, and the workings of the plant have become a matter of interest to so many tourists as to require at times the services of one of the attendants almost constantly in showing them around.

Dr. Hugh Smith, the United States Fish Commissioner, visited the park in June and made an inspection of the hatchery and of conditions in the park as relating to his department.

WILD ANIMALS.

The weather and other natural conditions for all game were ideal, and the antelope, deer, elk, and mountain sheep wintered in splendid condition.

ANTELOPE.

The new woven-wire fence extending from the entrance arch at Gardiner 4 miles west on the north line was completed in October and was effective in holding all antelope inside of the park during the winter. They were fed when the weather was severe enough

to warrant from the hay cut on the alfalfa field near Gardiner, but the winter was so open that only about two-thirds of the hay available was used, the balance being carried over. Two good crops of hay have been cut from this field during the summer and stacked for winter use, the total amount being about 150 tons. About 600 antelope were counted, which shows an increase of about 100 over last year.

DEER.

The deer are becoming tamer each year, and it is sometimes hard to convince strangers that they are really wild animals and not some that have been raised in captivity. The white-tailed variety do not seem to increase noticeably, but their numbers remain about the same (around 100) from year to year. Careful observation of the black-tailed deer indicates that at least 1,100 wintered in the park, scattered in small bands throughout the northern part, and they frequently stray outside into the adjoining States, where they are killed by hunters during the open season.

ELK.

A census was again made of the elk, comprising the northern herd in the park, between April 11 and May 2 and showed a total of 35,209 in this herd. Ninety-nine were shipped away before the census was taken, making a total of 35,308, an increase of 3,079 over the total number found the previous year. In making this count only 30 dead elk were found. The condition of the herd could hardly be better. Under the regulations of the department governing the distribution of animals from the Yellowstone National Park, 1913-14, promulgated December 3, 1913 (Appendix A), authority was granted for shipment of 782 elk from the park during the past winter. In some cases the authority was canceled by request of those who had secured it; in other cases those who had secured proper authority were unable to raise funds to pay the expense of making the capture and shipment, and others who wanted the elk were unable to get them on account of the winter being so warm and open and natural feed so plentiful that they did not come down to the hay put out to attract them to the pens where they are caught. The result was that only 99 of the 782 allotted were captured and shipped, these being shipped in February and March, as follows: Thirty-one to Denver, Colo., of which 25 were for the Genesee Mountain Park and 6 for the zoological gardens in Denver; 6 to Portland, Oreg., for the city park; 2 to Valley City, N. Dak.; 25 to Stevens County, Wash.; 3 to Toledo, Ohio; 2 to Hot Springs, S. Dak.; and 30 to Anaconda, Mont. The small shipments were made by express and the balance by carloads by freight. The expense of capturing and loading on the cars was the same as last year, namely, \$5 per head for capture and loading on the freight cars at Gardiner in carload lots and \$15 each if crated for shipment by express, the difference being in the cost of the crates. Several applications for elk were denied for various reasons.

The work of capturing and shipping wild elk in quantities is no longer experimental, but it has become a well-established fact that under ordinary winter conditions they can be captured and

shipped long distances with but little greater percentage of loss than would be experienced in shipping ordinary range cattle.

Another of the effects of the open fall and winter was poor hunting in the adjoining States, as the elk remained high up in the mountains until late in the fall after the open season had closed and very few crossed the line until they were protected by the State laws.

MOOSE.

Patrols and others have frequently seen moose in various parts of the park, and they are reported to be in good condition.

BUFFALO.

WILD HERD.

No particular effort was made to make an accurate count of the wild herd of buffalo, but they have been seen in considerable numbers on several occasions, and there is every reason to believe that they are in good condition and are increasing slowly.

TAME HERD.

The tame herd of buffalo consists of 193 animals, of which 96 are males and 97 females. Of these, 19 males and 15 females are this year's calves. Two female calves were born in October, 1913, after my annual report had been made. The mother of one of them did not recover well and died during December. The remains were sent to the National Museum at Washington, D. C., for use as specimens. Four live bulls were donated to cities that already owned buffalo cows, they paying all expense of crating and shipment, as follows: Two to Denver, Colo., one to Kansas City, Mo., and one to Portland, Oreg. One of those shipped to Denver was injured in shipment, so that it finally had to be killed, and the city had it mounted as a specimen.

A veterinarian of the Agricultural Department came to the park in November and vaccinated the calves of the herd against hemorrhagic septicemia.

Early in June the experiment was made, by permission of the department, of turning loose 20 of the old bulls of the buffalo herd in an attempt to persuade them to join the wild herd in the park. They were driven up the Lamar River as far as the high water and melting snow would permit, but all have gradually wandered back to the herd. Later in the season another attempt will be made to separate these bulls from the herd. Sixteen bulls were driven in to Mammoth Hot Springs for the summer as a show herd, and 10 of those driven up Lamar River also wandered back and were put in the pasture with them, making a total of 26 bulls that were held during the summer where they could be viewed by tourists, making one of the main attractions at this point. They were returned to the main herd on September 4.

The fences around the pastures at the buffalo farm on Lamar River were in bad condition last spring, most of the posts having rotted off. Extra laborers have been employed repairing them and

irrigating the meadows and doing general ranch work during the entire summer, in addition to the work of the regular employees. About 4 miles of fence has already been renewed, and the work is still in progress.

The hay crop was not up to the standard, necessitating going over more ground than is included in the field set apart as a meadow. Considerable hay of the native variety was cut from 2 to 4 miles up Lamar River, making, with the irrigated hay, about 210 tons in all, which will be sufficient for the use of the herd the coming winter.

BEARS.

While there has been less complaint than usual during the past season of depredations by bears, there seems to be an abundance of them, and they are seen by practically everyone touring the park. Only three dangerous bears had to be killed during the season, all of them brown or black bears that had become tame while cubs and were therefore fearless when they grew up. In one case the remains were prepared and shipped to the National Museum, but in the other two cases this was impracticable and they were destroyed. Shipments to public parks, under authority of the department, were made of live bears as follows: October 19, 1913, a mother grizzly and one cub to Dallas, Tex.; October 20, 1913, a male grizzly to Spokane, Wash.; June 12, 1914, two yearling grizzlies, male and female from different litters, to Madison, Wis.; June 16, 1914, a female grizzly with one cub to Denver, Colo.; June 23, 1914, a male brown bear to Spokane, Wash.; and July 24, 1914, a male grizzly to Kansas City, Mo. In all cases the cities receiving the bears paid all expense of capture and shipment.

COYOTES AND WOLVES.

One hundred and fifty-five coyotes were killed by officers, noncommissioned officers in charge of stations, scouts, and others on duty in the park. Gray wolves have made their appearance in the park in considerable numbers, having been seen traveling in packs of 10 or less. While efforts have been made to kill them, thus far none have been taken inside of the park, though a few have been killed just outside, along the northern border. They are very destructive of game, and efforts will be made to kill them.

MOUNTAIN LIONS.

Mountain lions are quite numerous, and are destructive of deer, elk, and sheep. Nineteen were run down with dogs and killed during the year.

MOUNTAIN SHEEP.

The mountain sheep are very tame and are seen daily during the winter. They are in excellent condition.

OTHER ANIMALS.

Other small animals, such as beaver, foxes, lynx, otter, marten, and mink are numerous.

Under authority of the department, a family of four beaver (a male, two females, and one kitten) was captured alive in the park and shipped on April 25, 1914, to the park commissioners at Toledo, Ohio.

PROTECTION OF GAME.

Several arrests have been made of poachers and persons found hunting in the park, and in some cases where the accused plead guilty at the hearing before the United States commissioner the grand jury failed to return an indictment and the offenders were discharged.

BIRDS.

Birds of many varieties are found, and waterfowl are particularly numerous, many of them remaining in the park all winter, in the streams that are fed by the hot springs, and are therefore open all the year round.

IMPROVEMENTS.

The 4 miles of high woven-wire fence extending west from the entrance arch at Gardiner along the north line to the mountains was finished last fall; also a 5-foot steel picket fence a little over 2,000 feet long, built under contract, from the entrance arch east in front of the town of Gardiner to the Gardiner River. These fences serve to keep cattle and dogs out of the park and to hold the antelope inside the park in winter.

On August 7, 1914, the Snake River soldier station at the southern entrance burned to the ground. The men on duty at the station were all out at work at the time, and the building and contents were a total loss. It has been replaced by a one-story log building 16 by 50 feet, with an addition 16 by 24 feet, which gives the T shape to the structure.

During the summer a crew of 15 men constructed a new fire lane about 27 miles long from Obsidian Creek bridge about $7\frac{1}{2}$ miles south of Fort Yellowstone, in a general southwesterly direction to Riverside soldier station near the western entrance, and began another new fire lane from Snake River station, east toward the southeast corner of the park, with the intention of building to Yellowstone River, thence down the Upper Yellowstone to connect with another fire lane at Mountain Creek, but snow came when they were 6 miles up Snake River from the station and they were unable to proceed. This work can not be completed until next season. The same crew also went over the fire lanes from the town of Yellowstone on the west line of the park to Bechler station, thence east along the south line to Snake River, a distance of about 61 miles, and cleared out and repaired them. It is now engaged in going over and repairing the fire lane extending from the Cody road south along the east shore of Yellowstone Lake and the Upper Yellowstone River and will be kept out as long as the weather will permit working to an advantage.

STAGE ROBBERY.

For the fourth time in the history of the park passenger coaches were held up on the road and the occupants forced at the point of a gun to give up their money and valuables. This robbery occurred at

about 10 o'clock a. m. on the morning of July 29, 1914, at Shoshone Point, about 11 miles east from Upper Geyser Basin, toward Thumb of the Lake, only about 7 miles from the scene of the hold-up of August 24, 1908. Fifteen coaches, surreys, etc., were stopped one at a time and the passengers made to get down and fall in line and deposit their money in a sack which was placed on the ground in front of the robber, who controlled the situation by very forcible language backed by a dangerous-looking rifle which he held in a position ready for instant use. The driver of the sixteenth rig, suspecting that something was wrong ahead, managed to turn around and drive back without being noticed. He warned all teams that he met of the danger and hurried back to Upper Basin and gave the alarm.

The word reached headquarters at about 11 o'clock, and all haste was made to get all available men on the trail. It was generally believed that there were two men connected with the robbery; in fact, it was so stated by many of the victims, but on close questioning most of them said they believed there was a second man who kept himself concealed in the forest, but they could give no description of him. The fresh trail of two horses was picked up not far away, and it was followed south along the east shore of Shoshone Lake and from the outlet of the lake southwest across Pitchstone Plateau, until dark; and next day it was again found very fresh, and followed, but was lost about the south line of the park in wet ground where there had been a recent heavy storm. The tracks of the same horses were later found on the road leading toward Ashton, Idaho, and followed some miles, but were finally lost where the road was much traveled.

The facts with a description of the robber were telegraphed and mailed to all parts of the adjacent country, and rewards aggregating \$1,100 were offered by the transportation companies and the Department of Justice. The victims were interviewed and a list of their names and addresses, with statement of losses, was kept on file for reference. The list, which is not quite complete, as a few did not wish to make any statement, includes 82 people and shows a total loss of \$915.55 in cash and about \$130 worth of jewelry, though the robber stated several times that he wanted nothing but cash. Several parties succeeded in snapping their kodaks on the scene, and one lady from Chicago got a fairly good picture of the robber, of which she has kindly furnished a copy for identification purposes. But he was masked with a black handkerchief and from various descriptions it is thought that he had on superfluous outer clothing which he disposed of soon afterwards, so that it will be a difficult matter to identify him by sight should he ever be apprehended. Two apparently good clues have had to be abandoned on account of lack of funds to follow them up, and one man who was brought in under strong suspicion was interviewed by some of the drivers and other victims who failed to identify him as the stage robber and he was discharged.

SANITATION.

Two men with a team and wagon were kept at work all through the tourist season keeping the public camping grounds in good order and caring for the public earth closets maintained by the department.

Measures to prevent the pollution of the drinking water used by visitors to the park are now under consideration by the department,

and it is important that they be put in operation before the fine health record of the park is broken.

Mr. Mark Daniels, the general superintendent of national parks, made his first annual inspection in August.

FOREST FIRES.

The cooperative agreement of August 14, 1912, between the Departments of the Interior, War, and Agriculture to render mutual assistance in prevention and suppression of forest fires occurring in the vicinity of the park boundary is still in effect, but, although there have been many forest fires in both the park and the adjoining national forests during the latter part of the past summer, in only two instances were they near enough to the line to make this agreement applicable. Both occurred in the adjoining forests, the first one about a half mile outside of the park and about 7 miles south from the town of Yellowstone, Mont., on September 7, when on request five soldiers from the nearest soldier station assisted the forest rangers for several hours and succeeded in getting it under control, and the second time just over the south boundary and about 8 miles west from Snake River station, when the soldiers from that station assisted the rangers and also succeeded in controlling the fire within a few hours. Last spring opened early, the snows were not deep and disappeared earlier than usual, and with only a few local showers during the summer, the forests became exceedingly dry, and, notwithstanding the utmost vigilance on the part of everyone, fires broke out almost daily, several of them gaining considerable headway before they were controlled. Through an understanding with the officer in charge of road construction we were authorized to call upon the nearest road crew in emergency in case of forest fires, and on several occasions the timely assistance of these crews saved very extensive and serious forest fires. The crew engaged in building fire lanes also had to be utilized for a number of days in fighting the most extensive forest fire we had to contend with, the one on the eastern end of Pitchstone Plateau, which was discovered on August 23 and had to be watched until about September 14, when a heavy general storm put an end to any further danger of forest fires in all parts of the park. The most serious fires were as follows:

One on the main road 10 miles east from Riverside soldier station on August 16. This burned so rapidly that but for remarkably quick action on the part of the road crew working about 3 miles away the result would have been disastrous. As it was about 2 acres were burned over. On August 22 another smaller fire was found and extinguished along the same road but about 3 miles east from the soldier station. This one was extinguished before it did much damage. In both of these cases there is little doubt that the fires started by a match or cigar or cigarette stub thrown out of a passing vehicle.

On August 23 a party from Fort Yellowstone were fishing on Yellowstone River about 6 miles above Tower Falls station, when a sudden gust of wind blew sparks from their camp fire—which had been left in charge of one of the members of the party while the others went fishing—into the brush close by and spread so rapidly that the whole party and all available men from Tower Falls station

had to work hard for several hours to get it under control, and it had to be carefully watched for several days afterwards to see that it did not break out again. This fire burned over an area of about 2 acres.

On the same date the fire on Pitchstone Plateau, about 8 miles north from Snake River station and about 2 miles west from the road, was discovered. This one covered an area about $1\frac{1}{2}$ miles long by one-half mile wide, and at times required the united efforts of the crew engaged in building fire lanes and one of the road crews to hold it in check, and it was not left unguarded until a big storm, ending in snow, came on. This fire was probably started by lightning.

On September 2 a fire was discovered on the trail about one-fourth mile north of Shoshone Lake, evidently caused from a camp fire of some party fishing in the stream emptying into the lake. This threatened to be an extensive fire and required the combined efforts of the soldiers from Upper Basin and Thumb stations and the nearest road crew to get it under control. It burned over about 5 acres.

On the same date the men on duty at Soda Butte station reported a fire on a small lake about 3 miles northeast from the station up Soda Butte Creek, apparently started by lightning. They managed to control it without assistance after it had burned over an area of about 2 acres.

Many camp fires found burning have been extinguished that showed evidence that the usual precautions had been taken to put them out, but owing to the extreme dryness they had smoldered on under ground and finally broke out again. Many other small fires started by unknown causes were found and put out before any serious consequences resulted. Altogether, I consider that the park has been most fortunate to have passed through the period of unprecedented drouth without very extensive forest fires, and am satisfied that this has been due to extreme vigilance on the part of all and cooperation on the part of those working or doing business in the park.

NATURAL PHENOMENA.

No unusual changes have been noted in the natural phenomena, except that a small new geyser broke out at Upper Basin, between the Beehive and Lion, on September 12, 1914, which still continues to play two to three times a day to the height of about 20 to 30 feet. The crater known as the Cascade which has been dormant for several years, also began to play to about the same height at about the same time, and the Beehive has apparently discontinued to play. Observations are being made of these two new geysers, and if they continue their activity they will be added to the list of natural wonders.

CONCESSIONS.

Concessioners holding privileges for a year or more in Yellowstone National Park under existing contracts, with rentals and other taxes exacted.

Yellowstone Park Hotel Co.: Contracts (two) dated February 26, 1913, run for period of 20 years, and grant to company right to use certain land in the park and erect and maintain thereon hotels and necessary buildings connected therewith.

Annual rental: \$40 per acre on 29.43 acres, \$1,177.20. News-stand privilege at hotels and lunch stations, \$750. Usage tax, 1914: 25 cents per capita on guests during 1913 season, \$—.

Yellowstone Park Transportation Co.: Contract dated February 26, 1913, runs for period of 20 years, and authorizes company to establish and maintain a stage and transportation line, and agrees to lease necessary land at eight designated sites on which to construct and maintain buildings required for accommodation of stock, carriages, employees, etc.

Annual rental: \$40 per acre on 27.16 acres, \$1,086.40. Usage tax, 1914: 25 cents per capita on passengers carried during 1913 season, \$—.

Yellowstone Park Boat Co.: Contract dated February 7, 1913, runs for 10 years, and lease dated May 19, 1914, for 9 years from February 7, 1914, grants to company privilege of maintaining, operating, and conducting on Yellowstone Lake and such other park lakes as may be designated motor boats and launches, motor vessels, rowboats, and dories for accommodation of tourists, with right to sell and rent fishing tackle and sell fruits, nuts, confectionery, books, periodicals, cigars, tobacco, and camping supplies, and lease or sell bathing suits. Contract agrees to lease lands on shores of Yellowstone Lake on which wharves and ways are constructed, and at other points to be agreed upon on which to erect buildings for storage of equipment, accommodation of employees, etc.

Compensation for boat privilege, \$100 per annum. Annual rental on 1.8592 acres at \$40 per acre, \$74.37.

Wylie Permanent Camping Co.: Contract of May 4, 1906, runs for 10 years from March 31, 1906, and grants transportation privilege in park, with sites for maintenance of permanent camps therein, and right to conduct lunch stations at points near Gibbon River and West Thumb of Yellowstone Lake.

Annual rental: \$10 per wagon (not less than 50 to be used) on 101 wagons used during 1914 season \$1,010. News-stand privilege at permanent camps \$500. Usage tax, 1914: 50 cents per capita on passengers carried during 1913 season, \$—.

Shaw & Powell Camping Co.: Special permanent camping license issued April 19, 1913, and running for a period of one year from May 1, 1913, or until such time as it may be revoked, authorizes it to maintain, conduct, and carry on the business of transporting tourists in and through the park and provide for their accommodation at permanent camps to be established on sites at designated points in the reservation, and to maintain a lunch station on Madison River between the present Wylie camp and the State line.

Annual rental: \$10 on each wagon used (75 passenger and 10 freight wagons used 1914 season), \$850. News-stand privilege at permanent camps, \$100. Usage tax, 1914: 25 cents per capita on passengers carried during 1913 season, \$—.

Holm Transportation Co.: Contract entered into March 14, 1913, with company for the period of one year from and after March 31, 1913, authorizes the establishment and maintenance of a stage and transportation line in the park, with the right to use and occupy such parcels of land as may be necessary at or near designated points therein on which to construct and maintain suitable buildings and inclosures for accommodating stock, carriages, and employees. Supplemental agreement entered into with company on January 23, 1914, extending the contract further for a period of three years from March 14, 1914.

Annual rental: \$40 per acre on approximately 1.79 acres, \$71.60. Usage tax, 1914: 25 cents per capita on passengers carried during the 1914 park season, \$—.

George Whittaker: Contract dated March 13, 1913, for period of 10 years, grants use of 24,000 square feet of land at or near Mammoth Hot Springs, with privilege of maintaining a dwelling, store, and post office.

Annual charge, \$100. Usage tax, 1914, \$800 per annum. Total, \$900.

Yellowstone-Western Stage Co.: Contract dated February 2, 1914, authorizing, for the term from February 2, 1914, to December 31, 1914, establishment and maintenance of a stage and transportation line, and permitting the use of certain parcels of land in connection with such privilege, aggregating 13 acres, together with use of buildings located thereon, approximately 47 in number, for accommodation of stock, carriages, and employees.

Rental for period of contract: \$40 per acre on 13 acres, \$520. For use of buildings, \$2,500.

Pryor & Trischman: Contract dated August 26, 1908, running for period of eight years, from April 3, 1908, issued to George R. and Anna K. Pryor, in-

terest of former transferred to Elizabeth Trischman through assignment approved by Department of the Interior October 29, 1912, grants use of tract of land near Mammoth Hot Springs in park, containing 13,800 square feet, on which to maintain dwelling, store, and soda fountain.

Annual rental, \$50; usage tax of \$115 per annum. Total, \$165.

Henry E. Klamer: Contract of January 31, 1908, for period of 10 years, beginning June 1, 1907, authorizes use of 2-acre tract of land at or near Upper Geyser Basin, with privilege of maintaining thereon building or buildings for use as dwelling and conduct of a general store. Mr. Klamer died August 12, 1914, since which date the business has been conducted by his wife, his sole heir and executrix.

Annual rental, \$100; usage tax, \$1,200 per annum. Total, \$1,300.

F. Jay Haynes: Contract of May 25, 1914, for period of three years from April 1, 1914, authorizes use of 2.64 acres of land at Mammoth Hot Springs and 1 acre at or near Upper Geyser Basin, with privilege of maintaining buildings thereon for the preparation and sale of photographic views. Contract also agrees to lease not to exceed 1 acre of land at or near Grand Canyon for buildings for photographic purposes.

Annual rental: \$40 per acre on 2.64 acres, \$105.60. For privileges accorded, \$1,000 at Mammoth Hot Springs, \$1,000 at Upper Basin, and \$500 at Grand Canyon. Total, \$2,605.60.

Henry J. Brothers: Contract of July 1, 1914, for a period of 10 years from same date, authorizes use of approximately $2\frac{1}{2}$ acres of land, at \$40 per acre \$100, to be leased to him at Upper Geyser Basin, with privilege of maintaining bathhouse and bathing pools. Compensation for bathhouse privilege, \$200 per annum.

Annual rental: \$40 per acre for land leased. Also \$200 for privilege. Payments to begin one year from time bathhouse is open to public. Work now in progress.

Personally conducted camping party and special licenses issued in the Yellowstone National Park during the season of 1914.

ENTERING AT GARDINER, OR NORTHERN, ENTRANCE.

Name of licensee.	License No.	Usage tax (25 cents per capita passengers carried), 1913 season.		Amount paid, special licenses issued at \$25 (1 wagon each).	Number of wagons, at \$10 each.	Number of horses, at \$2 each.	Total paid.
		Number carried.	Paid.				
Howard Eaton.....	5, 6, 39, 40	63	\$15. 75	.....	6	72	\$219. 75
S. E. & E. J. Larsen.....	13, 14	19	4. 75	.....	3	1	36. 75
H. P. Grant, Floyd Brogan & A. Lycan.....	7, 50	75	18. 75	.....	5	.....	68. 75
E. L. Robertson.....	28, 49	.....	.....	\$25. 00	1	.....	35. 00
T. E. Newcomb.....	34, 38	10	2. 50	.....	.....	17	36. 50
W. N. and O. M. Hefferlin.....	22, 23	80	20. 00	.....	8	2	104. 00
John Dougherty.....	25	.....	.....	25. 00	.....	.....	25. 00
Chas. G. Davis.....	52	.....	.....	25. 00	.....	.....	25. 00
Bert Stewart & O. C. Mack.....	15	.....	.....	25. 00	.....	.....	25. 00
O. O. Roseborough.....	24	.....	.....	25. 00	.....	.....	25. 00
Total.....	.....	247	61. 75	125. 00	23	92	600. 75

ENTERING AT NORTHERN AND WESTERN ENTRANCES.

B. D. Sheffield.....	51	15	\$3. 75	.....	3	.....	\$33. 75
Oscar and A. L. Roseborough.....	20, 21, 48	19	4. 75	.....	4	1	46. 75
Total.....	.....	34	8. 50	.....	7	1	80. 50

Personally conducted camping party and special licenses issued in the Yellowstone National Park during the season of 1914—Continued.

ENTERING AT CODY, OR EASTERN, ENTRANCE.

Name of licensee.	License No.	Usage tax (25 cents per capita passengers carried), 1913 season.		Number of wagons, at \$10 each.	Number of horses, at \$2 each.	Total paid.
		Number carried.	Paid.			
W. H. Jordan and J. W. Howell.....	{ 1, 2, 30, 37, 41, 42 }	6	\$1.50	7	14	\$99.50
R. W. Crane.....	{ 9, 10, 35, 36, 44 }	8	2.00	3	18	68.00
N. E. Brown.....	26, 27, 29	51	12.75	5	20	102.75
Frost & Richard.....	18, 19, 43	96	24.00	5	15	104.00
Simon Snyder.....	16, 17, 33	-----	-----	3	10	50.00
Joe A. Jones, M. G. Jones, and J. McGill..	3, 4	7	1.75	1	5	21.75
F. Morris.....	45, 46	16	4.00	3	7	48.00
Total.....	-----	184	46.00	27	89	494.00

ENTERING AT SOUTHERN, OR SNAKE RIVER, ENTRANCE.

Chas. C. Moore.....	31, 32	-----	-----	3	25	\$80.00
S. N. Leek.....	47	-----	-----	-----	16	32.00
Total.....	-----	-----	-----	3	41	112.00

ENTERING AT WESTERN, OR YELLOWSTONE, ENTRANCE.

Joe Clause.....	11, 12	24	\$6.00	3	2	\$40.00
M. A. Hougen and J. E. Phillips.....	8	-----	-----	6	-----	60.00
Total.....	-----	24	6.00	9	2	100.00

SUMMARY (ALL PARK ENTRANCES).

Park entrance.	Usage tax (25 cents per capita passengers carried), 1913 season.		Amount paid, special licenses issued.	Number of wagons, at \$10 each.	Number of horses, at \$2 each.	Total paid.
	Number carried.	Paid.				
Licenses entering at northern entrance and at both northern and western entrances combined.....	281	\$70.25	\$125.00	30	93	\$681.25
Licenses entering at eastern entrance.....	184	46.00	-----	27	89	494.00
Licenses entering at southern entrance.....	-----	-----	-----	3	41	112.00
Licenses entering at western entrance.....	24	6.00	-----	9	2	100.00
Total.....	489	122.25	125.00	69	225	1,387.25

RECOMMENDATIONS.

I desire to renew my recommendation of last year that an amendment be secured to section 4 of the act of Congress approved May 7, 1894, "to protect the birds and animals in Yellowstone National Park, and to punish crimes in said park, and for other purposes,"

making the term of imprisonment prescribed therein to read "not exceeding one year" instead of "not exceeding two years." This change in the law is desirable by reason of the fact that the Attorney General, in a letter dated June 5, 1913, to the United States attorney for Wyoming, said:

Since the act to which you refer (Comp. Stat. U. S. 1901, vol. 2, pp. 1562-1563) authorized a punishment of imprisonment not exceeding two years, offenses under it are clearly crimes within the meaning of the Constitution of the United States, and must, therefore, be prosecuted by indictment in the regular way. (See *Parkinson v. United States*, 121 U. S., 281; *Callan v. Wilson*, 127 U. S., 540, 551, 552, 556; *Schick v. United States*, 195 U. S., 65, 68.)

It is true that the Yellowstone Park act evidently intends this offense to be dealt with as a misdemeanor, to be tried and punished as such by the commissioner of Yellowstone Park, but Congress can not deprive an accused of his rights secured to him under the Constitution, and if the offense is one, as it is in this case, which may be punished by a term in the penitentiary, it ceases to be such a petty offense as may be proceeded with by information or by way of punishment by a commissioner. The authorities cited above are conclusive upon this point.

This holding vitiates the jurisdiction of the park commissioner as to final disposition of such cases and increases the cost of the prosecution thereof at least tenfold, as it necessitates the holding of all violators of the act of May 7, 1894, to the United States district court at Cheyenne, Wyo.

Very respectfully,

LLOYD M. BRETT,
Colonel of Cavalry, Acting Superintendent.

THE SECRETARY OF THE INTERIOR.

APPENDIX A.

REGULATIONS GOVERNING THE DISTRIBUTION OF ANIMALS FROM THE YELLOWSTONE NATIONAL PARK, 1913-14.

DEPARTMENT OF THE INTERIOR,
December 3, 1913.

1. *General.*—Distribution of animals will be limited to applications from Federal, State, and municipal authorities.

2. Allotments will be made in the order of receipt of applications, but preference will be given to shipments intended for national reservations.

3. Applicants will be expected to bear all expenses of capture, crating, and hauling, and to arrange for payment of transportation charges from Gardiner, Mont., to destination. Provision should be made for an attendant to accompany elk shipped in carload lots. Small consignments of elk or other animals should be forwarded by express if not in charge of an attendant. Special provision should be made for suitable crates in which to transfer animals from the car to point of destination.

4. *Antelope.*—The superintendent of the park recommends that on account of its present small size, the herd of antelope should not be distributed at present. Consequently no antelope will be distributed during the year.

5. *Bears.*—Bears, not to exceed two, for any public park or zoological garden may be shipped when properly crated.

6. *Beaver*.—A limited number of beaver will be distributed to points where the animals will have complete protection and where conditions are favorable for their increase.

7. *Elk*.—During the present fiscal year the total number of elk to be distributed will not exceed 800, and not more than 50 head will be shipped to any one State.

8. In view of the existence of several peculiar forms of elk on the Pacific coast, and the importance of keeping these elk distinct from the Rocky Mountain species, requests for elk intended for the Cascades, Sierra Nevada, or points west of these ranges will not receive approval.

9. In shipping elk the number of head in any one car shall not exceed 40; this number will be permitted only in the case of yearlings shipped in a 36-foot car; in all other cases the number of elk shall not exceed 25 head per car. When cattle cars are used for shipment of elk the lower part of the car must be covered with burlap, canvas, or some similar material to screen the animals from view and prevent them from being disturbed at stations en route; when box cars are used the doors should be left partly open for ventilation. Before shipping the elk all cars must be padded inside to a height equal to the shoulders of the animals. Ample arrangements must be made to provide food and water when cars are likely to be more than 12 hours en route. Whenever possible the elk should be fed and watered within the car, otherwise shipments will be governed by the 28-hour law (act of Congress of June 29, 1906, 34 Stat., 607). When convenient, snow should be furnished the elk instead of water, and tubs containing water or snow must be placed at the ends as well as in the middle of the car. Two partitions, one on each side of the door, must be provided as a place for food and water.

APPENDIX B.

RULES AND REGULATIONS.

Regulations Approved May 27, 1911.

The following rules and regulations for the government of the Yellowstone National Park are hereby established and made public pursuant to authority conferred by section 2475, Revised Statutes, United States, and the act of Congress approved May 7, 1894:

1. It is forbidden to remove or injure the sediments or incrustations around the geysers, hot springs, or steam vents; or to deface the same by written inscriptions or otherwise; or to throw any substance into the springs or geyser vents; or to injure or disturb in any manner or to carry off any of the mineral deposits, specimens, natural curiosities, or wonders within the park.

2. It is forbidden to ride or drive upon any of the geyser or hot-spring formations, or to turn stock loose to graze in their vicinity.

3. It is forbidden to cut or injure any growing timber. Camping parties will be allowed to use dead or fallen timber for fuel. When felling timber for fuel, or for building purposes when duly authorized, stumps must not be left higher than 12 inches from the ground.

4. Fires shall be lighted only when necessary, and completely extinguished when not longer required. The utmost care must be exercised at all times to avoid setting fire to the timber and grass.

5. Hunting or killing, wounding, or capturing any bird or wild animal, except dangerous animals when necessary to prevent them from destroying life or inflicting an injury, is prohibited. The outfits, including guns, traps, teams, horses, or means of transportation used by persons engaged in hunting, killing, trapping, ensnaring, or capturing such birds or wild animals, or in possession of game killed in the park under other circumstances than prescribed above, will be forfeited to the United States, except in cases where it is shown by satisfactory evidence that the outfit is not the property of the person or persons violating this regulation, and the actual owner thereof was not a party to such violation. Firearms will only be permitted in the park on written permission from the superintendent thereof. On arrival at the first station of the park, guard parties having firearms, traps, nets, seines, or explosives will turn them over to the sergeant in charge of the station, taking his receipt for them. They will be returned to the owners on leaving the park.

6. Fishing with nets, seines, traps, or by the use of drugs or explosives, or in any other way than with hook and line is prohibited. Fishing for purposes of merchandise or profit is forbidden. Fishing may be prohibited by order of the superintendent of the park in any of the waters of the park, or limited therein to any specified season of the year, until otherwise ordered by the Secretary of the Interior.

7. No person will be permitted to reside permanently or to engage in any business in the park without permission, in writing, from the Department of the Interior. The superintendent may grant authority to competent persons to act as guides and revoke the same in his discretion, and no pack trains shall be allowed in the park unless in charge of a duly registered guide.

8. The herding or grazing of loose stock or cattle of any kind within the park, as well as the driving of such stock or cattle over the roads of the park, is strictly forbidden, except in such cases where authority therefor is granted by the Secretary of the Interior. It is forbidden to cut hay within the boundaries of the park excepting for the use of the wild game and such other purposes as may be authorized by the Secretary of the Interior or the park superintendent.

9. No drinking saloon or barroom will be permitted within the limits of the park.

10. Private notices or advertisements shall not be posted or displayed within the park, except such as may be necessary for the convenience and guidance of the public, upon buildings on leased ground.

11. Persons who render themselves obnoxious by disorderly conduct or bad behavior, or who violate any of the foregoing rules, will be summarily removed from the park, and will not be allowed to return without permission, in writing, from the Secretary of the Interior or the superintendent of the park.

12. It is forbidden to carve or write names or other things on any of the mileposts or signboards or any of the platforms, seats, railings, steps, or any structures, or any tree in the park.

Any person who violates any of the foregoing regulations will be deemed guilty of a misdemeanor, and be subjected to a fine as provided by the act of Congress approved May 7, 1894, "to protect the birds and animals in Yellowstone National Park and to punish crimes

in said park, and for other purposes," of not more than \$1,000, or imprisonment not exceeding two years, or both, and be adjudged to pay all costs of the proceedings.

Instructions Approved April 15, 1914.

1. The feeding, interference with, or molestation of any bear or other wild animal in the park in any way by any person not authorized by the superintendent is prohibited.

2. *Fires*.—The greatest care must be exercised to insure the complete extinction of all camp fires before they are abandoned. All ashes and unburned bits of wood must, when practicable, be thoroughly soaked with water. Where fires are built in the neighborhood of decayed logs, particular attention must be directed to the extinguishment of fires in the decaying mold. Fire may be extinguished where water is not available by a complete covering of earth, well packed down.

Especial care should be taken that no lighted match, cigar, or cigarette is dropped in any grass, twigs, leaves, or tree mold.

3. *Camps*.—No camp will be made at a less distance than 100 feet from any traveled road. Blankets, clothing, hammocks, or any other article liable to frighten teams must not be hung at a nearer distance than this to the road. The same rule applies to temporary stops, such as for feeding horses or for taking luncheon.

Many successive parties camp on the same sites during the season, and camp grounds must be thoroughly cleaned before they are abandoned. Tin cans must be flattened and, with bottles, cast-off clothing, and all other débris, must be deposited in a pit provided for the purpose. When camps are made in unusual places, where pits may not be provided, all refuse must be hidden where it will not be offensive to the eye.

4. *Concessionaires*.—All persons, firms, or corporations holding concessions in the park must keep the grounds used by them properly policed and maintain the premises in a sanitary condition to the satisfaction of the superintendent.

5. *Bicycles*.—The greatest care must be exercised by persons using bicycles. On meeting a team the rider must stop and stand at side of road between the bicycle and the team—the outer side of the road if on a grade or curve. In passing a team from the rear the rider should learn from the driver if his horses are liable to frighten, in which case the driver should halt and the rider dismount and walk past, keeping between the bicycle and the team.

6. *Fishing*.—All fish less than 8 inches in length should at once be returned to the water with the least damage possible to the fish. Fish that are to be retained must be at once killed by a blow on the back of the head or by thrusting a knife or other sharp instrument into the head. No person shall catch more than 20 fish in one day.

7. *Dogs*.—Dogs are not permitted in the park.

8. *Grazing animals*.—Only animals actually in use for purposes of transportation through the park may be grazed in the vicinity of the camps. They will not be allowed to run over any of the formations nor near to any of the geysers or hot springs; neither will they be allowed to run loose within 100 feet of the roads.

9. *Formations*.—No person will be allowed on any formations after sunset without a guide.

10. *Hotels*.—All tourists traveling with the authorized transportation companies, whether holding hotel coupons or paying cash, are allowed the privilege of extending their visit in the park at any of the hotels without extra charge for transportation. However, 24 hours' notice must be given to the managers of the transportation companies for reservations in other coaches.

11. *Driving on roads of park*.—(a) Drivers of vehicles of any description, when overtaken by other vehicles traveling at a faster rate of speed, shall, if requested to do so, turn out and give the latter free and unobstructed passageway.

(b) Vehicles in passing each other must give full half of the roadway. This applies to freight outfits as well as any other.

(c) Racing on the park roads is strictly prohibited.

(d) Freight, baggage, and heavy camping outfits on sidehill grades throughout the park will take the outer side of the road while being passed by passenger vehicles in either direction.

(e) In making a temporary halt on the road for any purpose all teams and vehicles will be pulled to one side of the road far enough to leave a free and unobstructed passageway. No stops on the road for luncheon or for camp purposes will be permitted. A team attached to a vehicle will not be left without the custody of a person competent to control it; a team detached from a vehicle will be securely tied to a tree or other fixed object before being left alone.

(f) In rounding sharp curves on the roads, like that in the Golden Gate Canyon, where the view ahead is completely cut off, drivers will slow down to a walk. Traveling at night is prohibited except in cases of emergency.

(g) Transportation companies, freight and wood contractors, and all other parties and persons using the park roads will be held liable for violation of these instructions.

(h) Pack trains will be required to follow trails whenever practicable. During the tourist season, when traveling on the road and vehicles carrying passengers are met, or such vehicles overtake pack trains, the pack train must move off the road not less than 100 feet and await the passage of the vehicle.

(i) During the tourist season pack animals, loose animals, or saddle horses, except those ridden by duly authorized persons on patrol or other public duties, are not permitted on the coach road between Gardiner and Fort Yellowstone.

(k) Riding at a gait faster than a slow trot on the plateaus near the hotels where tourists and other persons are accustomed to walk is prohibited.

(l) Mounted men on meeting a passenger team on a grade will halt on the outer side until the team passes. When approaching a passenger team from the rear, warning must be given, and no faster gait will be taken than is necessary to make the passage, and if on a grade the passage will be on the outer side. A passenger team must not be passed on a dangerous grade.

(m) All wagons used in hauling heavy freight over the park roads must have tires not less than 4 inches in width. This order does not apply to express freight hauled in light spring wagons with single teams.

12. *Liquors*.—All beer, wine, liquors, whisky, etc., brought into the Yellowstone National Park via Gardiner to be carried over the roads through the reservation to Cooke City, must be in sealed containers or packages, which must not be broken in transit.

13. *Miscellaneous*.—Automobiles are not permitted in the park.¹

Persons are not allowed to bathe near any of the regularly traveled roads in the park without suitable bathing clothes.

14. *Penalty*.—The penalty for disregard of these instructions is summary ejection from the park.

Notices.—(a) Boat trip on Yellowstone Lake: The excursion boat on Yellowstone Lake plying between the Lake Hotel and the Thumb lunch station at the West Bay is not a part of the regular transportation of the park, and an extra charge is made by the boat company for this service.

(b) Side trips in park: Information relative to side trips in the park and the cost thereof can be procured from those authorized to transport passengers through or to provide for camping parties in the park; also at the office of the superintendent.

(c) All complaints by tourists and others as to service, etc., rendered in the reservation should be made to the superintendent in writing.

¹ The regulation prohibiting the use of automobiles in the park was so amended as to allow their use on the road leading from Bozeman, Mont., to the southern portion of Gallatin County, Mont.



